

POPEYE

SAVES THE EARTH

Operators Handbook

Midway Manufacturing Company
3401 North California Avenue
Chicago, Illinois 60618

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MENU SYSTEM OPERATION

The Main Menu allows you to choose from several categories, which in turn lead to other menus. To access the Main Menu, open the coin door and press the (Begin Test) button, then press the Enter button. Press the Up or Down buttons to cycle through the Main Menu. Press the Enter button to access a menu. Press the Escape button to return to the Main Menu. Press the Start button for HELP at any time.

Main Menu

R. Recharging Menu	
	R.1 Main Audio
	R.2 Earings Audio
	R.3 Standard Audio
	R.4 Feature Audio
	R.5 Histogram
	R.6 Time-Stamp
P. Partials Menu	
	P.1 Earnings Data
	P.2 Main Audio
	P.3 Standard Audio
	P.4 Feature Audio
	P.5 Score Histogram
	P.6 Game Time Histogram
	P.7 Time-Stamp
	P.8 All Data
T. Test Menu	
	T.1 Switch Edge
	T.2 Switch Lamp
	T.3 Single Switch
	T.4 Standard Test
	T.5 Feature Test
	T.6 General Simulation
	T.7 Score & Music Test
	T.8 Single Lamp
	T.9 All Lamp
	T.10 Lamp & Feature Test
	T.11 Display Test
	T.12 Plugged Test
	T.13 Colored Lamp Test
	T.14 Lockup Test
	T.15 Wheel Test
	T.16 Clear Ball Test
U. Utilities Menu	
	U.1 Clear Audio
	U.2 Clear Game
	U.3 Reset RST ID
	U.4 Set Time & Date
	U.5 Position Message
	U.6 Set Game ID
	U.7 Factory Adjustments
	U.8 Factory Resets
	U.9 Power
	U.10 Clear Config
	U.11 Auto Serv'n
A. Adjustments Menu	
	A.1 Standard Adjustments
	A.2 Feature Adjustments
	A.3 Pricing Adjustments
	A.4 H.S.T.D. Adjustments
	A.5 Pinball Adjustments

Press: Escape

To move out of a menu selection.

Press: Enter

To get into a menu selection.

Press: Up

Increases sequence; Example A.1, A.2, A.3, A.4.

Press: Down

Decreases Sequence; Example A.4, A.3, A.2, A.1.

Use Up and Down to cycle through the selections in a menu.

Use Escape and Enter to move into and out of the selected menu

LAMP MATRIX

Yellow (34)  Red

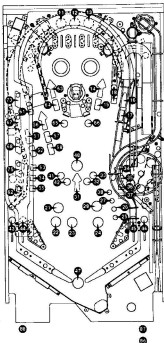
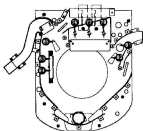
Column Row	1 Yellow- Brown J134-1 Q98	2 Yellow- Red J134-2 Q97	3 Yellow- Orange J134-3 Q96	4 Yellow- Black J134-4 Q95	5 Yellow- Green J134-5 Q94	6 Yellow- Blue J134-6 Q93	7 Yellow- Violet J134-7 Q92	8 Yellow- Gray J134-8 Q91
1 Red- Brown J134-1 Q90	Left Lane 11	Island Rhino 21	Lockjaw 31	Splice Oil Co. 41	Left Loop Arrow 51	"See" Standup 61	Backbox Tail 71	Upper Extra Ball 81
2 Red- Black J134-2 Q89	Center Lane 12	Island Leopard 22	Newer Green Co. 32	Blutonium Waste 42	Left Loop Can 52	Animal Dolphin 62	Backbox Star 72	Wingy 2X Wheel 82
3 Red- Orange J134-3 Q88	Right Lane 13	Island Eagle 23	Earth Paving Co. 33	Left Outlane 43	Popeye "T1" 53	Left Popper Arrow 63	Animal Rhino 73	Two Bank Upper 83
4 Red- Yellow J134-4 Q87	Fight Bluto 14	Island Dolphin 24	Excelsior Enter 34	Left Flipper Lane 44	Popeye "C1" 54	Instant Multi-Ball 64	Backbox Right 74	Two Bank Lower 84
5 Red- Green J134-5 Q86	Right Popper Can 15	Item Can Opener 25	Popeye "E1" 35	Right Flipper Lane 45	Popeye "P1" 55	Left Cheek 65	Animal Eagle 75	Animal Jackpot 85
6 Red- Blue J134-6 Q85	Right Loop Arrow 16	Item Bottle 26	Popeye "Y" 36	Special 46	Left Ramp Arrow 56	Right Cheek 66	Upper Ramp Left 76	Buy-In 86
7 Red- Violet J134-7 Q84	Right Loop Can 17	Item Katsup 27	Popeye "E2" 37	Shoot Again 47	Collect Item 57	Animal Panda 67	Upper Ramp Center 77	Launch Button 87
8 Red- Gray J134-8 Q83	"Hag" Standup 18	Island Panda 28	Item Flower 38	Rescue Olive 48	Left Ramp Can 58	Animal Leopard 68	Upper Ramp Right 78	Start Button 88

J102 - Power Driver Board

LAMP LOCATIONS

Item No.	Ball No.	Lamp Assy. No.	Description	Item No.	Ball No.	Lamp Assy. No.	Description
11	24-6768	A-17604	Left Lane	31	24-6768	A-17602	Lockjaw
12	24-6768	A-17604	Center Lane	32	24-6768	A-17602	Newer Green Co.
13	24-6768	A-17604	Right Lane	33	24-6768	A-17602	Earth Paving Co.
14	24-6768	A-17602	Fight Bluto	34	24-6768	A-17602	Excelsior Enter
15	24-6768	A-17602	Right Popper Can	35	24-6768	A-17602	Popeye "E1"
16	24-6768	A-17602	Right Loop Arrow	36	24-6768	A-17602	Popeye "Y"
17	24-6768	A-17602	Right Loop Can	37	24-6768	A-17602	Popeye "E2"
18	24-6768	A-17602	"Hag" Standup	38	24-6768	A-17602	Item Flower
21	24-6768	A-17602	Island Rhino	41	24-6768	A-17602	Splice Oil Co.
22	24-6768	A-17602	Island Leopard	42	24-6768	A-17602	Blutonium Waste
23	24-6768	A-17602	Island Eagle	43	24-6548	A-17602	Left Outlane
24	24-6768	A-17602	Island Dolphin	44	24-6548	A-17602	Left Flipper Lane
25	24-6768	A-17602	Item Can Opener	45	24-6548	A-17602	Right Flipper Lane
26	24-6768	A-17602	Item Bottle	46	24-6548	A-17602	Special
27	24-6768	A-17602	Item Katsup	47	24-6548	A-17602	Shoot Again
28	24-6768	A-17602	Island Panda	48	24-6548	A-17602	Rescue Olive

LAMP LOCATIONS Continued



Item No.	Bulb No.	Lamp Assy. No.	Description
51	24-6549	A-17807	Left Loop Arrow
52	24-6549	A-17835	Left Loop Can
53	24-6768	A-17803	Popper "P1"
54	24-6768	A-17803	Popper "O"
55	24-6768	A-17803	Popper "P2"
56	24-6549	A-17835	Left Ramp Arrow
57	24-6549	A-17835	Collect Item
58	24-6549	A-17835	Left Ramp Can
59	24-6549	A-17835	"Sea" Standup
60	24-6768	A-12687	Animal Dolphin
61	24-6549	A-17835	Instant Multi-ball
62	24-6549	A-17835	Left Popper Can
63	24-6549	A-17807	Left Cheek
64	24-6549	A-17807	Right Cheek
65	24-6768	A-12687	Animal Panda
66	24-6768	A-12687	Animal Leopard
67	24-6768	---	* Backbox Tail
68	24-6768	---	* Backbox Star
69	24-6768	A-12687	Animal Rhino
70	24-6768	---	* Backbox Right
71	24-6768	A-12687	Animal Eagle
72	24-6549	A-11905	† Upper Ramp Left
73	24-6549	A-11905	† Upper Ramp Center
74	24-6549	A-11905	† Upper Ramp Right
75	24-6549	A-17835	Upper Extra Ball
76	24-6549	A-17835	Wimpy 2X Wheel
77	24-6768	A-17853	Two Bank Upper
78	24-6768	A-17853	Two Bank Lower
79	24-6549	A-17835	Animal Jackpot
80	20-9663-9	---	Buy-In
81	20-9663-B-4	---	Launch Button
82	20-9663-1	---	Start Button

24-6768 = #555 Bulb

24-6549 = #44 Bulb

* Not Shown

† Associated Parts: A-12753-2 Lug & Diode

SWITCH MATRIX

Location Switch and Relay Use	Column Row	White								Flipper Associated Switches
		1 Green- Brown J200-1 J200-10	2 Green- Red J200-2 J200-12	3 Green- Orange J200-3 J200-16	4 Green- Yellow J200-4 J200-15	5 Green- Black J200-5 J200-14	6 Green- Blue J200-6 J200-13	7 Green- White J200-7 J200-11	8 Green- Grey J200-8 J200-11	
Orange-Brown J200-1	F1	1 White- Brown J200-1 J218-11	Left Lane	Start Tilt	Left Popper	First Bank	Right Through	Left Clock	Popper "H"	Black-Green J200-1 Right Flipper End of Bank F1
Left Coin Clock J200-2	F2	2 White- Red J200-2 J218-4	Start Button	Coin Door Closed	Right Popper	Center Lane	Through 2nd	Right Clock	Popper "O"	Black-White J200-1 Right Flipper Opto F1
Orange-Red J200-3	F3	3 White- Orange J200-3 J218-5	Start Button	Ball Launch	Right Loop Opto	Lockup Upper	Through 2nd	Excitator Tilt	Popper "O"	Black-Blue J200-2 Left Flipper End of Bank F1
Right Coin Clock	F4	4 White- Yellow J200-4 J218-7	Plumb Bob Tilt	Always Closed	Ramp Entrance	Lockup Center	Through 4th	Animal Display	Left Outlane	Black-Grey J200-2 Left Flipper Opto F1
Orange-White J200-5	F5	5 White- Green J200-5 J218-11	Right Lane	Left Lock	Ramp Completion	Lockup Lower	Through 5th	Animal Logic	Left Flipper Lane	Black-White J200-3 Upper Right Flipper End of Bank F1
Orange-Black J200-6	F6	6 White- Blue J200-6 J218-1	Left Jail	Popper "L"	Excitator Popper	Wheel Opto 1	Left Through	Animal Type	Left Stingbat	Black-Yellow J200-3 Upper Right Flipper Opto F1
Orange-Grey J200-7	F7	7 White- Violet J200-7 J218-5	Right Jail	Popper "R"	Wheel Tilt	Wheel Opto 2	Through Jail	Animal Puzzle	Right Stingbat	Black-Grey J200-3 Upper Left Flipper End of Bank F1
Orange-Blue J200-8	F8	8 White- Grey J200-8 J218-7	Center Jail	Popper "O"	Wag Standup	Wheel Opto 3	Wag Standup	Animal Hunt	Right Upper Lane	Black-Blue J200-3 Upper Left Flipper Opto F1

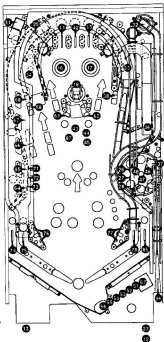
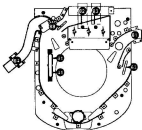
J200 = CPU Board, J200 = Flipper II Board

□ = Opto, Typically Closed

SWITCH LOCATIONS

Item	Switch Part #	Where Used	Item	Switch Part #	Where Used
F1	SW-1A-104	Lower Right Flipper EOS	32	A-16906 (LED)	Right Popper
F2	A-17316	Lower Right Flipper Cabinet	33	A-16906 (Trans.)	
F3	SW-1A-104	Lower Left Flipper EOS	34	A-16906 (LED)	Right Loop Opto
F4	A-17316	Lower Left Flipper Cabinet		A-16906 (Trans.)	
F5	SW-1A-104	Upper Right Flipper EOS	35	A-16906 (LED)	Ramp Entrance
F6	A-17316	Upper Right Flipper Cabinet		A-16906 (Trans.)	
F7	SW-1A-104	Upper Left Flipper EOS	36	A-16906 (LED)	Ramp Completion
F8	A-17316	Upper Left Flipper Cabinet		A-16906 (Trans.)	
11	5647-12693-10	Left Lane		A-16906 (LED)	Excitator Popper
12	20-5643-0	Bay In		A-16906 (Trans.)	
13	20-5643-1	Start Button	37	A-16906 (LED)	Wheel Exit
14	A-16361	Plumb Bob Tilt		A-16906 (Trans.)	
15	5647-12693-10	Right Lane	38	A-17755-6	"Wag" Stand-up
16	SW-11A-37	Left Jail	41	A-17225-4	Two Bank (2)
17	SW-11A-37	Right Jail	42	5647-12693-10	Center Lane
18	SW-11A-37	Center Jail	43	5647-12693-25	↑ Lockup Upper
21	A-17238	"Start" Tilt	44	5647-12693-25	↑ Lockup Center
22	5643-00288-00	"Coin Door Closed"	45	5647-12693-25	↑ Lockup Lower
23	20-9993-0-4	Ball Launch	46	A-17009	↑ Wheel Opto 1
24	5643-00112-00	"Always Closed"	47	A-17009	↑ Wheel Opto 2
25	5647-12693-10	Left Loop	48	A-17009	↑ Wheel Opto 3
26	A-17778-15	Popper "C 1"	51	A-16927 (LED)	Right Through
27	A-17778-15	Popper "C 1"		A-16928 (Trans.)	
28	A-17778-15	Popper "C 2"	52	A-16927 (LED)	Through 2nd
31	A-16906 (LED)	Left Popper		A-16928 (Trans.)	
	A-16906 (Trans.)		53	A-16927 (LED)	Through 3rd
				A-16928 (Trans.)	

SWITCH LOCATIONS Continued



Item	Switch Part #	Where Used
54	A-16927 (LED) A-16926 (Trans.)	Trough 4th
55	A-16927 (LED) A-16926 (Trans.)	Trough 5th
56	A-16927 (LED) A-16926 (Trans.)	Left Trough
57	A-16927 (LED) A-16926 (Trans.)	Trough Jam
58	A-17799-8	"Sea" Stand-up
59	A-17799-4	Left Cheek
60	A-17799-4	Right Cheek
61	5647-12693-19	Escalator Exit
62	5647-12693-21	Animal Dolphin
63	5647-12693-21	Animal Eagle
64	5647-12693-21	Animal Tiger
65	5647-12693-21	Animal Panda
66	5647-12693-21	Animal Rhino
67	A-17799-15	Popeye "P1"
68	A-17799-15	Popeye "Q"
69	A-17799-15	Popeye "P2"
70	5647-12693-19	Left Outline
71	5647-12693-19	Left Flipper Lane
72	5647-12693-19	Left Slingshot (Kicker)
73	5647-12693-19	Left Slingshot (Kicker)
74	5647-12693-19	Right Slingshot (Kicker)
75	5647-12693-19	Right Slingshot (Kicker)
76	5647-12693-19	Right Flipper Lane
77	A-16908 (LED) A-16906 (Trans.)	Upper Exit to Wheel
78	A-16908 (LED) A-16906 (Trans.)	Upper Ramp Left
79	A-16908 (LED) A-16906 (Trans.)	Upper Ramp Right
80	A-16908 (LED) A-16906 (Trans.)	Upper Ramp Right
81	5647-12693-25	Animal Jackpot
82	5647-12693-19	Right Outline
83	5647-12693-19	Shooter Lane
84	5647-12693-25	Lockup Kicker
85	5647-12693-19	Upper Shot Exit

* Not Shown

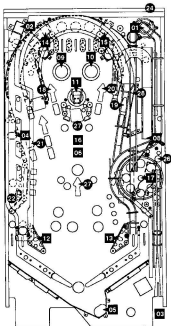
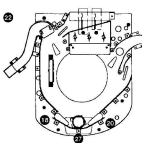
† Located Under Playfield

SOLENOID TABLE

Sol. No.	Function	Solenoid Type	Voltage Connections			Drive Cable	Drive Connections			Drive Wire Color	Solenoid Part Number (Playfield Type)	
			Playfield	Backbox	Cabinet		Playfield	Backbox	Cabinet		Playfield	Backbox
01	Right Popper	High Power	1300-1			002	1181-3			Red/Grn	AE-28-1200	
02	Left Popper	High Power	1300-2			002	1181-3			Red/Grn	AE-28-1200	
03	Ball Shooter	High Power	1300-3			025	1181-3			Red/Grn	AE-23-800	
04	Animal Director	High Power	1300-4			025	1181-3			Red/Yel	AE-28-1200	
05	Tough Coil	High Power	1300-6			004	1181-3			Red/Grn	AE-28-1200	
06	Knock Kicker	High Power	1300-7			008	1181-3			Red/Blk	AE-23-800	
07	Kicker	High Power		1300-8		004		1181-3		Red/Blk		AE-28-1200
08	Escalator Popper	High Power	1300-9			025	1181-3			Red/Yel	AE-23-800	
09	Left Jet	Low Power	1311-1			008	1181-2			Red/Blk	AE-28-1200	
10	Right Jet	Low Power	1311-2			008	1181-2			Red/Blk	AE-28-1200	
11	Center Jet	Low Power	1311-4			004	1181-2			Red/Grn	AE-28-1200	
12	Left Singshot	Low Power	1311-5			002	1181-2			Red/Blk	AE-28-1200	
13	Right Singshot	Low Power	1311-6			002	1181-2			Red/Blk	AE-28-1200	
14	Left Gate	Low Power	1311-7			002	1181-2			Red/Blk	A-14406	
15	Right Gate	Low Power	1311-8			008	1181-2			Red/Blk	A-14406	
16	Lockjaw Release	Low Power	1311-9			004	1181-2			Red/Grn	AE-28-1200	
17	Wheel Motor	Medium	1320-1			004	1181-4			Red/Yel	AE-17803	
18	Upper Playfield Left	Medium	1320-2			004	1181-4			Red/Grn	AE-28-1200	
19	Right Loop Backbox	Medium	1320-3	1320-5		008	1181-4	1181-5		Red/Yel	AE-28-1200	AE-28-1200
20	Left Blate	Medium	1320-4			008	1181-4			Red/Grn	AE-28-1200	
21	Left Loop Backbox	Medium	1320-5	1320-6		008	1181-4	1181-5		Red/Grn	AE-28-1200	AE-28-1200
22	Animal Ramp	Medium	1320-6	1320-7		020	1181-4	1181-5		Red/Blk	AE-28-1200	AE-28-1200
23	Skill Wheel	Medium	1320-7	1320-8		004	1181-4	1181-5		Red/Blk	AE-28-1200	AE-28-1200
24	R. Popper Backbox	Medium	1320-8	1320-9		004	1181-4	1181-5		Red/Yel	AE-28-1200	AE-28-1200
25	Not Used	Low Power				004				Red/Blk		
26	Left Loop Backbox	Low Power	1320-9	1320-3		004	1181-4	1181-5		Red/Grn	AE-28-1200	AE-28-1200
27	Lockjaw Arrow	Low Power	1320-3	1320-4		002	1181-4	1181-5		Red/Grn	AE-28-1200	AE-28-1200
28	South 90° Turn	Low Power	1320-4	1320-4		020	1181-4	1181-5		Red/Yel	AE-28-1200	AE-28-1200
General Information												
01	Left Popper	G.I.	1111-1			020	1181-7			Red/Blk	AE-28-1200	
02	Right Popper	G.I.	1111-2			020	1181-8			Red/Grn	AE-28-1200	
03	Ball Shooter	G.I.		1111-3		014		1181-9		Red/Blk		AE-23-800
04	Animal Director	G.I.		1111-4		014		1181-10		Red/Grn		AE-28-1200
05	Tough Coil	G.I.	1111-6			014	1181-11			Red/Blk		AE-28-1200
06	Knock Kicker	G.I.		1111-7		014		1181-12		Red/Blk		AE-23-800
07	Upper Playfield	G.I.	1111-8			020	1181-11			Red/Grn		
Flipper Circuits												
			Voltage Connections		Drive Transistor	Drive Connections		Drive Wire	Coil	Coil		
			Cabinet	Backbox	Coil	Playfield	Backbox	Color	Number	Color		
Lower Left Flipper	Low L. Power	AE-17505	AE-17505-1	AE-17505-2	00	AE-17505-1	AE-17505-2	Red/Grn	Cap/Grn	FL-11820	BLUE	
Lower Left Flipper	Low L. Hold	AE-17505	AE-17505-1	AE-17505-2	00	AE-17505-1	AE-17505-2	Red/Grn	Cap/Grn	FL-11820	BLUE	
Lower Right Flipper	Low R. Power	AE-17505	AE-17505-3	AE-17505-4	01	AE-17505-3	AE-17505-4	Red/Grn	Cap/Grn	FL-11820	BLUE	
Lower Right Flipper	Low R. Hold	AE-17505	AE-17505-3	AE-17505-4	01	AE-17505-3	AE-17505-4	Red/Grn	Cap/Grn	FL-11820	BLUE	
Upper Left Flipper	Up L. Power	AE-17505	AE-17505-1	AE-17505-2	01	AE-17505-1	AE-17505-2	Red/Grn	Cap/Grn	FL-11820	GREEN	
Upper Left Flipper	Up L. Hold	AE-17505	AE-17505-1	AE-17505-2	01	AE-17505-1	AE-17505-2	Red/Grn	Cap/Grn	FL-11820	GREEN	
Upper Right Flipper	Up R. Power	AE-17505	AE-17505-3	AE-17505-4	02	AE-17505-3	AE-17505-4	Red/Grn	Cap/Grn	FL-11820	GREEN	
Upper Right Flipper	Up R. Hold	AE-17505	AE-17505-3	AE-17505-4	02	AE-17505-3	AE-17505-4	Red/Grn	Cap/Grn	FL-11820	GREEN	

240V = Power Drive Board, 240V = Flipper B Board; 24-6000 = 24-6000, 24-6704 = 24-6704, 24-6708 = 24-6708, 24-6709 = 24-6709, 24-6710 = 24-6710, 24-6711 = 24-6711, 24-6712 = 24-6712, 24-6713 = 24-6713, 24-6714 = 24-6714, 24-6715 = 24-6715, 24-6716 = 24-6716, 24-6717 = 24-6717, 24-6718 = 24-6718, 24-6719 = 24-6719, 24-6720 = 24-6720, 24-6721 = 24-6721, 24-6722 = 24-6722, 24-6723 = 24-6723, 24-6724 = 24-6724, 24-6725 = 24-6725, 24-6726 = 24-6726, 24-6727 = 24-6727, 24-6728 = 24-6728, 24-6729 = 24-6729, 24-6730 = 24-6730, 24-6731 = 24-6731, 24-6732 = 24-6732, 24-6733 = 24-6733, 24-6734 = 24-6734, 24-6735 = 24-6735, 24-6736 = 24-6736, 24-6737 = 24-6737, 24-6738 = 24-6738, 24-6739 = 24-6739, 24-6740 = 24-6740, 24-6741 = 24-6741, 24-6742 = 24-6742, 24-6743 = 24-6743, 24-6744 = 24-6744, 24-6745 = 24-6745, 24-6746 = 24-6746, 24-6747 = 24-6747, 24-6748 = 24-6748, 24-6749 = 24-6749, 24-6750 = 24-6750, 24-6751 = 24-6751, 24-6752 = 24-6752, 24-6753 = 24-6753, 24-6754 = 24-6754, 24-6755 = 24-6755, 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SOLENOID LOCATIONS Continued



General Illumination Circuits

*01 Left Playfield	24-6549	G1 String 1
*02 Right Playfield	24-6549	G1 String 2
*03 Backbox General	24-8768	G1 String 3
*04 Backbox Title	24-8768	G1 String 4
*05 Upper Playfield	24-6549	G1 String 5

Flipper Coils

Assembly

*FL-11629 (Blue)	A-15849-L-2	Lower Left Flipper
*FL-11629 (Blue)	A-15849-R-2	Lower Right Flipper
*FL-11722 (Green)	A-16976-L-1	Upper Left Flipper
*FL-11722 (Green)	A-16976-R	Upper Right Flipper

■ Square indicates coil, P.C.D. or magnet
● Circle indicates button

*Not Shown
(Located Under Playfield)

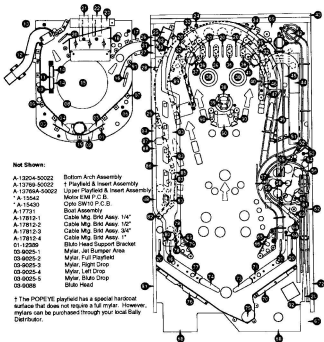
24-6549 = 150 Bush
24-8768 = 250 Bush
24-8768 = 1500 Bush
24-6549 = 1500 Bush

UPPER PLAYFIELD PARTS LIST

Item	Part Number	Description
1	01-12173	Ball Guide
2	A-17567	Upper Level Drain Assembly
3	A-17648	Left Cover Assembly
4	A-16976-L-1	Flipper Assembly Complete
	20-9732-6	Small Flipper & Shaft
5	A-16976-R	Flipper Assembly Complete
	20-9732-6	Small Flipper & Shaft
6	A-17649	Right Cover Assembly
7	01-11815	Ball Guide
8	* A-17638	Stud Plate Assembly (5)
9	01-11816	Ball Guide
10	01-12171	Ball Guide
11	A-17647	Light Cover Assembly
12	A-17736	Exit Ramp Assembly
13	A-17626-4	Playfield Plastic Assembly
14	A-17226-4	Stationary Target, Red
15	00-6047	Upper Playfield Window
16	A-17813-1	Roller Switch Assembly
17	A-17403	Upper Right Exit Assembly
18	A-17462	Upper Level Ramp Assembly
19	A-17817	Light & Bracket Assembly
20	A-17813	Roller Switch Assembly
21	A-17738	Opto Bracket Assembly
22	A-17737	Opto Bracket Assembly
23	A-17769	Upper Ramp Deflector Assy.
24	02-4765-6	Mounting Post 3.12"
25	A-17180	Ball Popper Assembly
	01-12460	Cover, Left Ball Popper
26	02-4176-30	Standoff 1.78"
	02-4176-64	Standoff 3.316"
27	02-4176-64	Standoff 3.316"
28	02-4968-1	Standoff 2.94"
29	01-11819	Ball Guide
30	02-4176-30	Standoff 1.78"
	02-4765-8	Mounting Post 4.31"
31	01-12103	Bracket, Left Drop Ramp
32	01-11180	Ball Deflector Bracket
33	A-17797-2	Special Ball Gate Assembly
	A-17796	Ball Gate Actuator Assembly
34	A-17797-1	Special Ball Gate Assembly
	A-17796	Ball Gate Actuator Assembly
35	01-12587	Ball Guide
36	02-8318-18	Light Hood, Yellow
37	01-11921	Ramp, Left Ball Popper
38	A-0415-2	Jet Bumper Coil Assembly
	B-0414-3	Jet Bumper Assembly
	B-09030-2	Jet Bumper Switch Assembly
	02-8254-10	Jet Bumper Cap, Blue
39	A-17626-7	Playfield Plastic Assembly
40	12-6466-6	Ball Guide Wire 1.14"
41	01-11973	Ramp, Right Ball Popper
42	A-17268	Ball Popper Assembly
43	A-17129	Back Roll Assembly
	A-17493	Back Panel Assembly
44	A-17777	Guide Ramp Assembly
45	A-17536	Opto Bracket Assembly
46	02-4765-6	Mounting Post 3.10"
47	01-11817	Ball Guide
48	02-4968-1	Standoff 2.94"
49	A-17626-3	Playfield Plastic Assembly
50	* A-17506	Center Ball Lock Assembly
51	01-12329	Ball Guide
52	* A-17774	Kicker Coil Assembly
53	02-4765-7	Mounting Post 3.44"
54	A-17626-1	Playfield Plastic Assembly
55	01-12330	Ball Guide
56	A-17865	Wheel Ring Assembly
57	A-17145	Rotating Plate Assembly
58	A-17639	Decal Ring Cover Assembly
	* A-17623	Wheel Motor Assembly
59	A-17785	Target & Cable Assembly
60	A-17402	Wheel Drop Guide Assembly
61	A-17626-5	Playfield Plastic Assembly
62	02-4765-7	Mounting Post 3.44"
63	* 01-12314	Post Adjustment Plate
64	A-17639	Gate Assembly
65	A-17801	Kicker Count Switch Assembly
66	A-17811	Slingshot Kicker Assembly
	A-17809-1	Coil & Bracket Assembly
67	A-14525	Kicker Assembly
68	01-9211	Playfield Hanger Bracket
69	A-17626-3	Playfield Plastic Assembly
70	01-12296	Ball Guide
71	A-17577-2	Flipper Guide & Plastic Assy.
72	01-11606	Right Playfield Rail
73	A-15849-R-2	Flipper Assembly Complete
	20-9734-5	Flipper & Shaft Assembly
74	A-15849-L-2	Flipper Assembly Complete
	20-9734-5	Flipper & Shaft Assembly
75	A-16765	Cutoff Ball Through Assy.
76	01-12448	Ball Guide
77	A-17577-1	Flipper Guide & Plastic Assy.
78	02-4436-25	Standoff 1.916"
79	A-17811	Slingshot Kicker Assembly
	A-17809	Coil & Bracket Assembly
80	01-12166	Ramp Ball Deflector
81	01-11605	Left Playfield Rail
82	* 01-9519	Post Adjustment Plate
83	A-17906	Switch Assembly
84	02-4968-1	Standoff 2.94"
85	12-7183	Ball Guide Wire
86	A-17626-2	Playfield Plastic Assembly
87	A-17351	Coil & Bracket Assembly
	* 02-4724	Entry Ramp Rollover
	* 12-8227	Hair Pin Clip
88	A-17560	5 Position Kicker Assembly
89	01-11814	Ball Guide
90	02-4903	Mounting Post
91	01-12308	Ball Guide
92	02-12417	Ball Guide
93	01-12461	Cover Bracket
94	02-4520	Support Post (8)

* Located Under Playfield.

UPPER PLAYFIELD PARTS LOCATIONS



LOWER PLAYFIELD PARTS

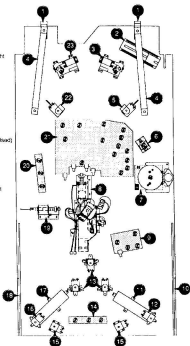
Item	Part Number	Description
1.	01-9211	Ptd. Hanger Bracket (2 Used)
2.	A-16765	Quinole Ball Trough Assembly
3.	A-15849-R-2	Flipper Assembly, Lwr. Right
4.	01-11781	Log Support (2 Used)
5.	A-17811	Kicker Arm (Slingshot) Assy., Right
	A-17809	Coil & Bracket Assembly
	10-128	Spring
6.	A-15642	Motor EMU Assembly
7.	A-17623	Wheel Motor Assembly
8.	A-17505	Center Ball Lock Assembly
9.	A-17600	5-Lamp PC Board Assy.
10.	A-17749-2	Ptd. Slide Mechanism, Right
11.	01-11873	Right Ramp-Ball Popper
12.	A-17258	Ball Popper Assembly
13.	A-9415-2	Jail Bumper Coil Assembly
14.	A-17624	3-Lamp PC Board Assy.
15.	A-17796	Ball Gate Actuator Assembly (2 Used)
16.	A-17180	Popper Assembly - Left
17.	01-11891	Left Ramp-Ball Popper
18.	A-17749-1	Ptd. Slide Mechanism, Left
19.	A-17251	Coil & Bracket Assembly
20.	A-17603	3-Lamp PC Board Assy.
21.	A-17602	16-Lamp PC Board Assy.
22.	A-17811	Kicker Arm (Slingshot) Assy., Left
	A-17809-1	Coil & Bracket Assembly
	10-128	Spring
23.	A-15849-L-2	Flipper Assembly, Lwr. Left

Lower Playfield Parts on Mini-Playfield:

24.	A-16976-R	Flipper Assembly, Right
25.	A-16976-L-1	Flipper Assembly, Left

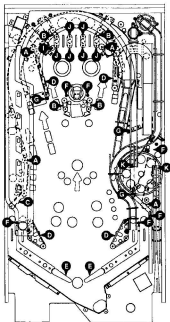
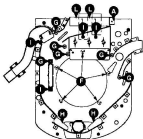


Underside of Mini-Playfield



Underside of Playfield, Viewed in Raised Position

RUBBER PARTS

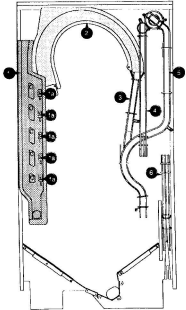


ITEM	PART#	DESCRIPTION	QTY.
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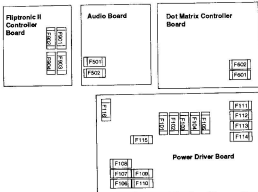
A.	23-6300	5/16" Ring	5
B.	23-6301	3/4" Ring	4
C.	23-6303	1 1/4" Ring	1
D.	23-6306	2 1/2" Ring	4
E.	23-6519-4	Flipper Ring-Red	2
F.	23-6535	Grommet	13
G.	23-6552	Yellow Sleeve	9
H.	23-6553-4	Small Flipper Ring	2
I.	23-6556	Black Sleeve	5
J.	23-6641-1	15/64" Ring	6
K.	23-6686	Bumper Pad	2
L.	23-6702	Bumper Plug	2

RAMPS

Item	Part Number	Description
1.	A-17404	Main Ramp Assembly
1a)	A-17906	U-Switch Subminiature Assy.
2.	A-17177	Ramp Assembly
3.	12-7184	Wire Ramp - Center
4.	A-17402	Wheel Feeder Wire Ramp Assy.
5.	12-7132	Ramps, Right
6.	A-17405	Wire Ramp Closure Assembly



FUSE LIST



Audio Board

F001	+25V Circuit	3A, 250V, S.B.
F002	+25V Circuit	3A, 250V, S.B.

Dot Matrix Controller Board

F001	+62V Circuit	3/4A, 250V, F.B.
F002	-110V and -126V Circuits	3/4A, 250V, F.B.

Power Driver Board

F101	Left Flipper	3A, 250V, S.B. (Not Used)
F102	Right Flipper	3A, 250V, S.B. (Not Used)
F103	Solenoid #25-#28	3A, 250V, S.B.
F104	Solenoid #9-#18	3A, 250V, S.B.
F105	Solenoid #1-#8	3A, 250V, S.B.
F106	G.I. #5 White-Vio	5A, 250V, S.B.
F107	G.I. #4 White-Grn	5A, 250V, S.B.
F108	G.I. #3 White-Yel	5A, 250V, S.B.

Fliptronic II Controller Board

F001	Upper Right Flipper	3A, 250V, S.B.
F002	Upper Left Flipper	3A, 250V, S.B.
F003	Lower Right Flipper	3A, 250V, S.B.
F004	Lower Left Flipper	3A, 250V, S.B.

Line Filter

Domestic Game	5A
Foreign Game	5A, S.B.

F109	G.I. #2 White-Orn	5A, 250V, S.B.
F110	G.I. #1 White-Blm	5A, 250V, S.B.
F111	Flasher Secondary	5A, 250V, S.B.
F112	Solenoid Secondary	7A, 250V, S.B.
F113	+5V Logic	5A, 250V, S.B.
F114	+10V Lamp Matrix	8A, 32V, N.B.
F115	+12V Switch Matrix	3/4A, 250V, F.B.
F116	+12V Secondary	3A, 250V, S.B.

WARNINGS & NOTICES

WARNING

FOR SAFETY AND RELIABILITY, substitute parts and equipment modifications are not recommended. Use of Non-BALLY parts or modifications of game circuitry, may adversely affect game play, or may cause injuries.

SUBSTITUTE PART OR EQUIPMENT MODIFICATIONS may void FCC Type Acceptance.

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WARNING

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generated, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

RF Interference Notice

CABLE HARNESS PLACEMENTS and ground strap routing on this game have been designed to keep RF radiation and conduction within levels accepted by the FCC Rules.

TO MAINTAIN THESE LEVELS, reposition harnesses and reconnect ground straps to their original placements, if they become disconnected during maintenance.

FCC STICKER. Check the back of your game to verify that an FCC-certification sticker was attached to your game at the factory. All Games that leave the BALLY plant have been tested and found to comply with FCC Rules. Because the sticker is proof of this fact, legal repercussions to the owner and distributor may result, if the sticker is missing. If you receive a game, manufactured after December 1982, that has no FCC sticker, call BALLY for advice or write us a note on your Game Registration Card. Be sure that the card bears your game's serial number.

FOR SERVICE...
CALL your authorized
BALLY Distributor

MIDWAY Manufacturing Company
3401 N. California
Chicago, IL 60618

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**CAUTION: Transport this game ONLY
with hinged backbox DOWN!**